

REMARKS/ARGUMENTS

The non-final Office Action of October 8, 2009 has been carefully reviewed and this paper is responsive thereto. Claims 23, 25, 27-31, 33-35, 37-43 and 45-49 are pending in the application. Independent claims 23, 29 and 49 have been amended. Support for the amendment can be found in the specification as originally filed, e.g., at page 8, paragraph 22. No new matter has been introduced into the application.

Claim Rejections - 35 U.S.C. § 103(a)

Claims 23 and 25 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,445,500 (Osterholm) in view of U.S. Patent No. 5,685,313 (Mayevsky) and Adelman et al. (article in The Journal of General Physiology).

Claims 27 and 28 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,445,500 (Osterholm) in view of U.S. Patent No. 5,685,313 (Mayevsky) and Adelman et al. (article in The Journal of General Physiology) as applied to claim 25 above, and further in view of applicant admitted prior art (AAPA).

Claims 29-31, 37, 42, 43 and 45 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,445,500 (Osterholm) in view of U.S. Patent No. 6,845,264 (Skladnev et al.) and Adelman et al. (article in The Journal of General Physiology).

Claims 33 and 34 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,445,500 (Osterholm) in view of U.S. Patent No. 6,845,264 (Skladnev et al.) and Adelman et al. (article in The Journal of General Physiology) as applied to claim 29 above, and further in view of U.S. Patent No. 5,685,313 (Mayevsky).

Claims 35, 38 and 46-48 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,445,500 (Osterholm), U.S. Patent No. 6,845,264 (Skladnev et al.), and Adelman et al. (article in The Journal of General Physiology) as applied to claim 29 above, and in view of applicant admitted prior art (AAPA).

Claims 39-41 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,445,500 (Osterholm), U.S. Patent No. 6,845,264 (Skladnev et al.), and Adelman et

al. (article in The Journal of General Physiology) as applied to claim 29 above, and further in view of US 2003/0215813 A1 (Roberds et al.).

Claim 49 was rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,445,500 (Osterholm) in view of applicant admitted prior art (AAPA), U.S. Patent No. 6,845,264 (Skladnev et al.), and Adelman et al. (article in The Journal of General Physiology).

Claim 23 has been amended to claim “computer control that reads and executes stored program instructions that cause the pumping mechanism to pump the extracted fluid according to the program and measured electrical conductivity of the brain fluid to change the electrical potential difference across a nerve cell membrane in epilepsy generating brain structure by changing the ion concentration in the modulated ion-content fluid to increase the potential difference from -70 millivolts to -80 or more millivolts.” Osterholm does not teach at least the computer control as claimed. Osterholm is directed to apparatus for stroke treatment utilizing extravascular circulation of oxygenated synthetic nutrients to treat tissue hypoxic and ischemic disorders. The words “epilepsy” and “epileptic” do not appear in Osterholm. There is no mention in Osterholm of computer control that causes a pumping mechanism to pump the extracted fluid according to the program and measured electrical conductivity of the brain fluid to change the electrical potential difference across a nerve cell membrane in epilepsy generating brain structure by changing the ion concentration in the modulated ion-content fluid to increase the potential difference from -70 millivolts to -80 or more millivolts. The only mention of a voltage amount in Osterholm is in connection with a microvolt measurement for an example of efficacy of treatment for cerebral ischemia in cats. *See* Osterholm at col. 25, lines 5-60.

Claim 29, as amended, now claims “means for measuring the electrical conductivity of brain fluid after the modulated ion-content fluid is injected into the patient’s brain; the fluid pumping mechanism or fluid ion adjustment mechanism including means for adjusting the delivery of the modulated ion-content fluid, based upon the measured electrical conductivity of the brain fluid, said means for adjusting comprising computer control that reads and executes stored program instructions that cause the pumping mechanism to pump the extracted fluid according to the program and measured electrical conductivity of the brain fluid to change the

electrical potential difference across a nerve cell membrane in epilepsy generating brain structure by changing the ion concentration in the modulated ion-content fluid to increase the potential difference from -70 millivolts to -80 or more millivolts.” As noted above, Osterholm does not teach the claimed features in claim 29.

Claim 49, as amended, claims “means for adjusting the delivery of the modulated ion-content fluid into the region of the patient’s brain, based on the monitored electrical conductivity of the brain fluid, where the ion-content fluid is pumped to the patient's brain, said means for adjusting comprising computer control that reads and executes stored program instructions that cause the pumping mechanism to pump the extracted fluid according to the program to change the electrical potential difference across a nerve cell membrane in epilepsy generating brain structure by changing the ion concentration in the modulated ion-content fluid to increase the potential difference from -70 millivolts to -80 or more millivolts.” As noted above, Osterholm does not teach the claimed features in claim 49.

The secondary references do not remedy the deficiencies in Osterholm. Thus, even if the proposed combinations of Osterholm and the other cited references are deemed proper, they would not result in the claimed invention of independent claims 23, 29, and 49.

The pending dependent claims are patentable for at least the same reasons that independent claims 23 and 29 from which they depend are patentable, and for the additional features recited therein.

Conclusion

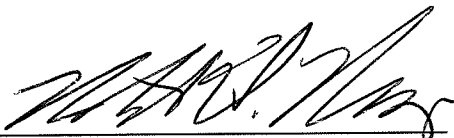
It is respectfully submitted that the pending claims are in condition for allowance. The Examiner is invited to contact the undersigned at the telephone number provided below should it be deemed necessary to facilitate prosecution of the application.

Respectfully submitted,

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